REMARKS:

In the foregoing amendments, claims 1-7 were canceled. Claims 8-14 were added to the application. Accordingly, claims 8-14 are in the application for consideration by the examiner. The correspondence between the original claims in the new claims is as follows:

Original Claims	New Claims
1	8, 9
2	10
3	10
4	11
5	12
6	13
7	14

Applicant desires to express thanks to Examiner Diaz for the courtesies extended due the undersigned in a telephone interview on June 4, 2003. In this interview, the undersigned explained some of the differences between the presently claimed invention and the teachings cited thereagainst. Some proposed changes to the claims were also discussed. At the time of the telephone interview, it appeared that the examiner would allow the application, if claim 1 was amended by adding the expression "with without use of an optical element for further narrowing a bandwidth of an oscillation beam of laser light" at the end of the claim, and if the limitations of claim 3 were incorporated into claim 1. In the foregoing amendments, claims 1-7 were canceled, and new claims 8-14 were added to the application. It is believed that these new claims encompass allowable subject matter along the lines

discuss with the examiner. For these reasons, applicant respectfully requests that the foregoing amendments be entered under the provisions of 37 C.F.R. § 1.116(b) for the purposes of pacing the application condition for allowance or for the purposes of appeal.

The Official action set forth a single prior art rejection of applicant's claims. This was a rejection of claims 1-7 under 35 U.S.C. § 103(a) as being in patentable over U.S. patent No. 6,240,117 of Gong *et al.* (Gong) in view of U.S. patent No. 6,154,470 of Basting *et al.* (Basting). The Official action acknowledged that Gong fails to teach the limitation of setting the total pressure to equal to or lower than a predetermined value. The teachings of Basting were cited for rectifying this deficiency in the teachings of Gong. The examiner cited Basting at column 1, lines 13-15, and column 2, lines 30-35, for this purpose.

During the telephone interview with the examiner, it was explain that the teachings of Gong do not suggest a direct or predictable relationship between fluorine partial pressure and bandwidth of laser light. In the prior art rejection of the claims, it was stated that Gong teaches that the pressure of the laser (apparently fluorine partial pressure) is set equal to or lower than a predetermined value such that a bandwidth of laser light oscillated by the laser chamber is narrowed to a desired value, citing Fig. 7 of Gong. However, Gong does not teach this. Within the teachings of Gong, the bandwidth is narrowed by the line narrowing module 8 of the device shown, for example, in Fig. 4,

before the testing shown in Fig. 7 was carried out. In other words, the results shown in Fig. 7 are for a laser having a previously narrowed bandwidth. For this reason, applicant respectfully submits that one of ordinary skill in the art cannot be motivated to adjust bandwidth based on partial pressure of fluorine (or total laser gas pressure), based on the teachings of Gong.

Furthermore, figure 7 of Gong shows very little change of line width relative to fluorine concentration. In fact, Fig. 7 of Gong shows that there is not a direct or predictable relationship between fluorine concentration and line width; because between the concentrations of 26 and 31 kPa of fluorine, as the concentration of fluorine increases, the line width first increases and then becomes constant, and then increases again. Accordingly, at least with the optimum range shown in Fig. 7 of Gong, there is not a direct relationship between fluorine concentration and line width. Therefore, the teachings of Gong cannot motivate one of ordinary skill in the art to narrow laser bandwidth by varying fluorine or other gas concentration and/or partial pressure.

The teachings of Gong are concerned with the relationship between the discharge voltage and fluorine concentration. Figure 3 of Gong proposes fairly large swings of discharge voltage and fluorine concentration are possible. Perhaps this could be better understood by reviewing the discussion in Gong from column 7, line 64, through column 9, line 6, where Gong discusses discharge voltage versus fluorine concentration. Gong proposes that wide swings of the discharged voltage and fluorine concentrations can result in

variations in important laser beam perimeters such as wavelength, bandwidth, energy sigma, etc. The data in Table II at column 8 of Gong shows very little change in line width relative to fluorine concentration. More importantly, this table is also varying the voltage. Thus, Table II of Gong, as well as Fig. 7 of Gong, cannot establish that only fluorine concentration is controlling line width.

For the aforesaid reasons, applicant respectfully submits that the teachings of Gong have absolutely no discussion therein concerning controlling laser bandwidth by adjusting gas pressure, such as the total laser gas pressure required an applicant's claims. For this reason alone, applicant respectfully requests that the examiner reconsider and withdraw the rejection of the present claims over any combination of teachings including the teachings of Gong.

The teachings of Gong are also distinguishable from the presently claimed invention for the reasons set forth in the response filed on November 29, 2002, which reasons are incorporated herein by reference. The teachings of Basting do not cure or rectify the deficiencies in the teachings of Gong. While the Official action cited the teachings of Basting at column 1, lines 13-15, and column 2, lines 30-35, for suggesting it is well-known in the art to set the total pressure of the laser gas to a predetermined value, such that a bandwidth of laser light oscillated by the laser chamber is narrowed to a desired value, the teachings of Basting simply do not do this. Column 1, lines

13-15, of Basting mentions line narrowing, and column 2, lines 30-35, of Basting mentions a gas mixture pressure having a total pressure of less than 5 bars. However, there is no discussion in Basting remotely contemplating or suggesting that total pressure is related to bandwidth of laser light. In particular, the teachings of Basting do not contemplate or suggest that the total pressure of the laser gas is set equal to or lower than 2.8 atm, such that a bandwidth of laser light oscillated by the laser chamber is narrowed to a desired value, as set forth in present claims 8 and 9.

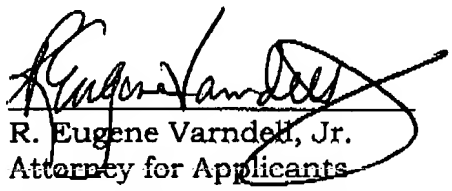
As explained in the telephone interview with the examiner, in the presently claimed invention, the bandwidth of the oscillation beam of laser light is controlled by reducing the total pressure of the laser gas without use of an optical element for further narrowing the bandwidth of the oscillation beam, laser light. This latter limitation, which the examiner believed helpful for allowability of the presently claimed invention, is included in new claim 9 above. New claims 8 and 9 both required that the total pressure of the laser gas is set equal to a lower than 2.8 atmospheres, such that a bandwidth of laser light oscillated by the laser chamber is narrowed to a desired value. As shown in figure 2 of the present application, as the total gas pressure (atm) is reduced from a value of about 4 atm, the bandwidth is narrowed. At a total laser gas pressure of about 2.8 atm, the bandwidth is about 0.6. No teaching cited against applicant's claims remotely contemplates any relationship concerning the lowering the total laser gas pressure from a value of about 5

atm, which is normally used for laser oscillation, to a lower value, such as about 2.8 atm, as required and present claims 8 and 9, for reducing bandwidth of laser light as required in the present claims. Accordingly, applicant respectfully submits that new claims 8 and 9, as well as new claims 10-14 which depend directly or indirectly thereon, define patentable subject matter within the meaning of 35 U.S.C. §102 and 35 U.S.C. §103.

In view of the foregoing amendments and remarks, favorable consideration and allowance of claims 8-14 are respectfully requested. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 22-0256.

Respectfully submitted,
VARNDELL & VARNDELL, PLLC
(Formerly Varndell Legal Group)



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Certification of Transmission

I hereby certify that this correspondence including a Response after Final under 37 C.F.R. § 1.116, which totals 12 pages including this certification, is being facsimile transmitted to the U.S. Patent and Trademark Office (Fax No. 703-746-3891) on June 12, 2003.

R. Eugene Varndell Jr.